MARKET RESEARCH OF A WORK-SAFETY SOFTWARE IN GERMANY

Raphael Wiesendanger

Bachelor's thesis
July 2016
International Business

TAMPEREEN AMMATTIKORKEAKOULU
Tampere University of Applied Sciences

ABSTRACT

Tampereen ammattikorkeakoulu
Tampere University of Applied Sciences
International Business

Raphael Wiesendanger:
Market Research of a Work-Safety Software in Germany

Bachelor's thesis 49 pages, appendices 6 pages
July 2016

The aim of this Bachelor's thesis was to provide WellWorks Oy, a development company of Human Resource Information Systems, with an overview of the German market because of a consideration to expand abroad. The product in charge is TTurva, a work-safety software for tracking work-related accidents and provide a safer work environment. Additionally to the market overview, the value of this software was to be examined.

This study was divided into two different market researches. To accomplish the marketing environment research, secondary data were used for conducting different theoretical frameworks such as a PEST-Analysis, Porter's 5-Forces model and a SWOT-Analysis. A product research for evaluating the product in charge was processed with self-gathered primary data. The data were collected from 60 participants of an online survey and were of quantitative content.

Based on the outcome of the survey the value of TTurva is sufficient to succeed on the German market. It meets the requirements of prospective buyers even though up to today it is not available in German language. Wellworks Oy profits from the already existing economies of scale and a user-friendly design of the software.

The findings indicate that a market entry to Germany is likely to be successful. The case company benefits from the strong German economy and the low entry costs when entering the new market since a software company does not need and have high assets and fixed costs. The awareness of the employers to provide a safe work environment for their employees is another favour that WellWorks is benefiting from. However, as compared with other countries, Germany's slow growing digitalisation is a disadvantage for the case company, but with motivated sales representatives this can be adverted.

It is advisable to attend branch-specific trade shows in the target country to attract customers and raise awareness inside the industry. Furthermore, competitors can be inspected and researched as this was hardly possible due to a lack of available information.

Key words: market research, product research, work safety,

CONTENTS

1 INTRODUCTION

Every single employee in Germany should leave his or her work place at the end of a working day healthy and without any injuries. However, in 2014 more then 880,000 work-related accidents occurred in German companies. Not surprisingly the majority are minor accidents like slipping, stumbling and toppling, but at the same time many incidents have the result of unnecessary severe injuries. These allegedly small accidents along with more severe but less common occurring heavy accidents (e.g. results of breaking machine or disregarded security instructions) should be avoided with an effective accident and risk management. (EU-OSHA 2001.)

Among the employer's responsibility is the obligation to provide a secure work-environment and to make sure that all safety guidelines, standards and instructions are followed by all employees of an organisation. Not only that damage on people has to be avoided, the costs affected out of an accident should not be ignored. An estimation implies that the costs of an accident can be up to 1,000 EUR per day. A scheme for calculating the costs of a work-related accident is like the following:

Direct costs
+ Indirect costs

= Gross costs of a work-related accident
- Regular labour costs

= Net costs of a work-related accident

While direct costs can be precisely linked to the accident (labour costs due to absent of worker and accident costs), the indirect costs are the one which cannot be directly linked to the accident, but resulting out of it (e.g. quality loss, overtime hours of co-workers, property damages, replacement labour costs, etc.) In average one work accident costs around 7,500 EUR. (Diemer n. d. & Hönl n. d.)

The Finish software company WellWorks Oy is a provider of a work-safety software. Up to today, it only sells its product in its home market Finland. Since globalization is progressing faster then ever, companies are forced to look over the boarders and expand to new markets in order to generate more profits. Nevertheless the first step in growing international is to observe and analyse the target market in all its characteristics. Based

on the objectives of the company, a thoroughly conducted market research provides information about potential customers and its features, the acceptance of the products in charge and market details of the foreign country.

The following thesis provides a market research of TTurva, a work safety software of the case company WellWorks in Germany and gives advice if the planned market entry is likely to be successful or not.

2 RESEARCH PLAN

2.1 Thesis topic

While searching for a company for which I can write my bachelor's thesis, I learned about the Finish Software Company WellWorks Oy. The company's representatives are currently considering selling their software solutions in Germany in order to expand their general business.

As I am an international business student from Germany, I can provide the case company with deep knowledge and understanding of the target market and can gather relevant information whether it is recommendable to enter Germany or not. During my time as a student, I was concentrating on marketing courses. The topic provided by the case company is highly favourable for my personal and professional interests.

After a meeting with the representative of WellWorks Oy, we decided that the Market Research would be about *TTurva*, a work-safety and accident tracking software system. WellWorks Oy primarily sees high potential for this software on the German Market and asks for a thorough market analysis and an evaluation of *TTurva*'s value on the target market.

2.2 Thesis objective and purpose

The purpose of this bachelor's thesis is to **examine and provide the case company with an overview of the German market related to work-safety software solutions**. Additionally, **the value of *TTurva* will be verified** for an easier decision making process whether the product meets the requirements of the target market in its current scope or if further attributes should be added to *TTurva*. To achieve this, the following subquestion will be answered:

- Which characteristics does the target market provide?
- What are the requirements for a work-safety system in Germany?
- What is the value of *TTurva* according to the needs on the German market?

The outcome of this paper will give WellWorks Oy a deep impact on the decision whether to enter the German market or not. Furthermore, the case company will be able to evaluate *TTurva* and, if necessary, extend the software with needed features.

2.3 Market research

The next logical step for a well running and growing, domestically operating company is entering a foreign market. However, this cannot be the only reason for taking the possible risk of expanding overseas. Jim Blythe (2012, 239) stated six rational reasons for a company to enter a foreign market:

- *Small or saturated markets*: In case the domestic market is relatively small or is about to be saturated, a company seeks for new business opportunities in a foreign, unsaturated market.
- *Economies of scale*: The effect of reduced costs with higher production (e.g. due to high initiation or R&D costs) encourages many companies to go global as with the higher amount of sales the unit costs decrease even more and the experience in handling operations increases.
- *International production*: If a company is able to produce with fewer costs abroad, many will consider shifting production assemblies to other countries.
- *Customer relationships*: Suppliers probably have to adapt with internationalizing in case they deliver MNC's (Multinational Corporation, this term is used for a company who operates worldwide) or other worldwide acting companies.
- *Market diversification*: A compensation of risk with serving different markets comfort companies to expand overseas.
- *International competitiveness*: As the domestic market of a company is likely to get entered by a foreign firm, the domestic company might go international as well in order to remain strong on the market.

An expansion provides a lot of opportunities like higher profit and reduced costs with it. Nevertheless, the risks of entering a foreign market should not be downplayed. The lack of knowledge and experience of the prospective markets and customers are a huge factor that needs to be eliminated. An accurate and comprehensive market research de-

creases this risk by giving a clear overview of the company's environment with all its characteristics. (Blythe 2012, 98.)

Not every market research concerns the same business or field that has to be analysed. Jim Blythe (2012, 98 – 99) defined six different types of market research:

- *Customer research*: A thorough analysis of the customer's characteristics and market segments.
- *Promotion research*: Controlling and measuring the success of conducted promotions in the shade of the stated marketing objectives.
- *Product research*: Analysing the value for an existing product or service and to identify suggestions for improvement.
- *Distribution research***:** Investigation to find the best suitable channels for logistic matters.
- *Sales research*: Research for analysing the markets in terms of size and value. It is also used to identify effective trainings for the sales force.
- *Marketing environment research*: Analysis of the micro- and macro-environment of the company so that the company can identify its competitive advantage and has the opportunity to respond to market changes quickly.

For examining accurately the prospective market entry of the case company WellWorks Oy, two different types of market research will be conducted. To identify the environment of the case company in Germany, a marketing environment research is the most appropriate research type. For analysing the value of *TTurva*, a product research can deliver comprehensive details about the customer's requirements to a work safety system and compare them to the existing product. The two approaches for investigating the target market will be explained in chapter 2.5 and 2.6 respectively.

2.4 Data collection

In general, collecting data for research can be done with primary or secondary research. Secondary research means gathering existing data from documents including books and annual reports, statistic, web documents, and already conducted market researches. Primary sources on the other hand are data collected for the first time and for the paper's purpose. In other words the researcher designs a research-questionnaire (e.g. survey or

interview) to gather new information about the topic. Generally, it is advisable to start with the cheaper and quicker secondary research and collect missing data with a primary research. However, it is possible that the data of existing materials is out of date or not specifically for the same topic. Every source should be individually proved for up-to-dateness and reliability. (Blythe 2012, 100 – 101.)

2.5 Marketing environment research

The environment of a company consists of all the factors which have direct or indirect effect on the company. For an organisation it is very important to understand that the market can change rapidly and abruptly. Therefore, a clear understanding of these factors is a must. Figure 1 gives an overview of typical forces of a company's environment. While the internal environment basically consists of the company's employees and the offered products, the external environment deals with influences from the outside of the organisation. The external environment of a company is divided into the micro- (also known as competitive environment) and the macro-environment. While the micro-environment is composed of factors that have impact on the competition on the market (e.g. competitors and customers), the macro-environment deals with wider leverages, which might influence the company's businesses (e.g. political- and social factors). (Blythe 2012, 22 – 43.)

Data for the marketing environment research has been collected by secondary research, as extensive and reliable information are available to conduct an accurate analysis of the company's environment.

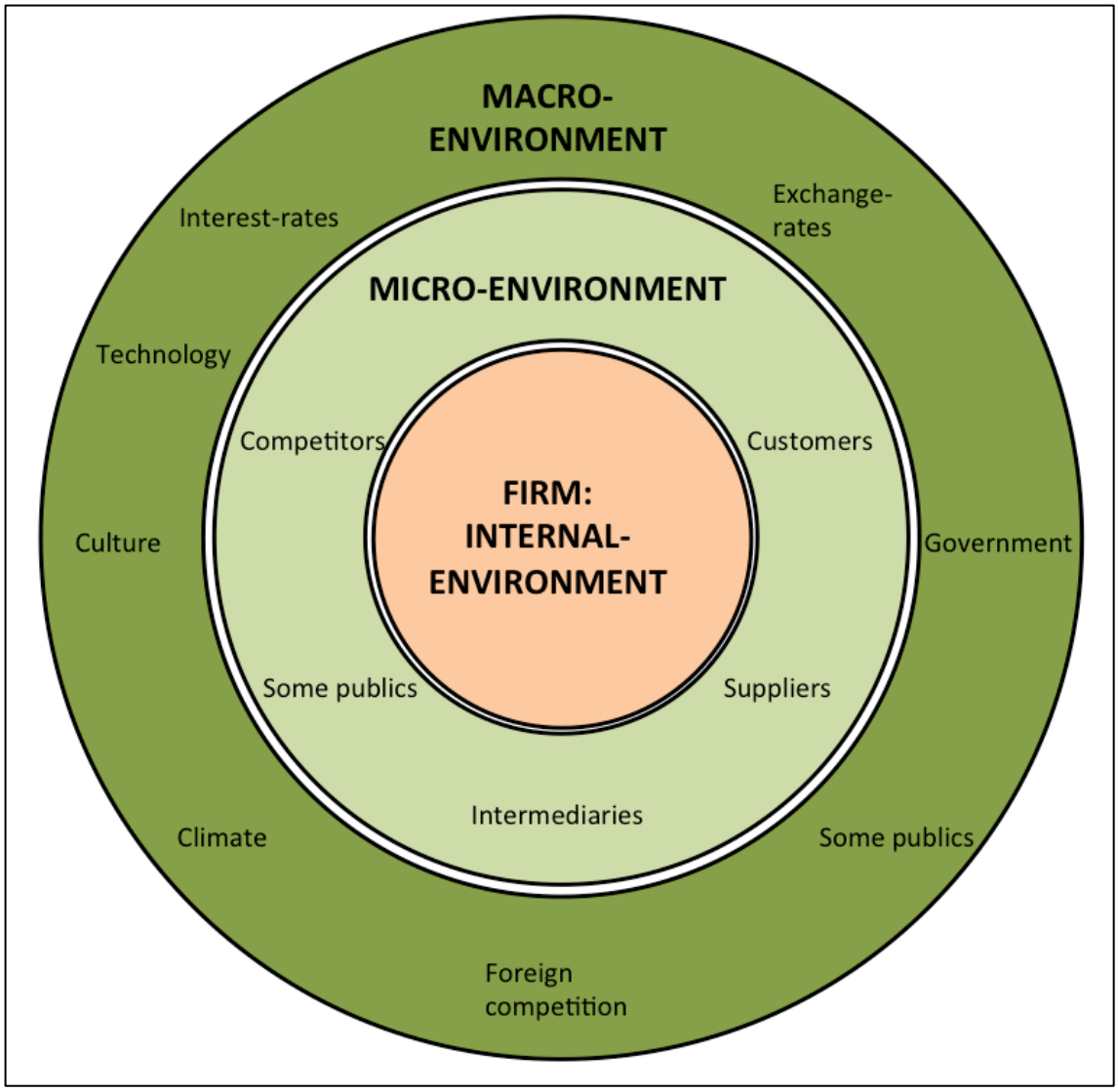


FIGURE 1. Micro- and macro-environment forces (Blythe 2012, 27, modified)

2.5.1 PEST Analysis

A proper start for the environment analysis is to look at the macro-environment. Important to mention is that unlike the micro-environment, the forces of the much broader macro-environment are uncontrollable and companies have to adapt to the conditions on the market and change – if necessary – the company towards the macro-environment. These could be either threats or opportunities for an organisation but first they have to be identified and evaluated. A famous and highly appropriate framework is the so-called PEST-Analysis. The name of this analysis is derived from the different environment forces on the market:

- Political environment
- Economical environment
- Social-cultural environment
- Technological environment (Hooley et al. 2012, 56.)

The important reason why the political environment must be analysed is that it has major influence on the economy and the political stability. Laws passed by government can have impact on guidelines and regulations concerning the core business of an organisation. This field of environment primarily consists of the government, political parties and current legislation. In general, it is hard to influence the political environment. One exception is the lobbyism, the influencing of politicians towards the industries favour. (Blythe 2012, 24 – 34; Hooley et al. 2012, 56 – 59.)

Economical environment deals with factors like the current and future economical situation in the market. Taxes, interest rates and investment behaviour can have major influence on the order situation of the company, as well. It is important to analyse this situation on the prospective market to avoid negative surprises. (Hooley et al. 2012, 56 – 59.)

The social and cultural environment of an industry is primarily based on demographics and cultural behaviour. Especially foreign companies, which plan to enter a new market, should know the formation of the target country and cultural identity. For companies operating on B2B (Business-to-business) markets the business behaviour is of special interest. The country's peculiarities should be deeply analysed, as if not, possible contracts or clients might be discouraged for conducting business. To develop a sustainable business environment, a foreign company always should adapt to the behaviour of the target market. (Blythe 2012, 65 – 68, Hooley et al. 2012, 59 – 60.)

The technological environment is a fast changing issue that can effect an entire industry. It is important to analyse and follow the development of technological change. A clear understanding on technological trends and innovation gives a company a competitive advantage and helps to sustain on the market in the long run. (Hooley et al. 2012, 62 – 63.)

2.5.2 5-Forces model of industry competition

The 5-Forces model of industry competition is a framework developed by Michael Porter to identify and analyse the competition of the industry in which a company operates. It is therefore a tool to gather information of the micro-environment. Porter stated that competition is not merely the business rivalry among companies, but relies on five different forces that have direct impact and influence on the industry and indicate the attractiveness of a market. Analysing and dealing with the industry is essential for a long-term success on the prospective market. Figure 2 shows the five different forces of the model. (Hollensen 2001, 81 – 85.)

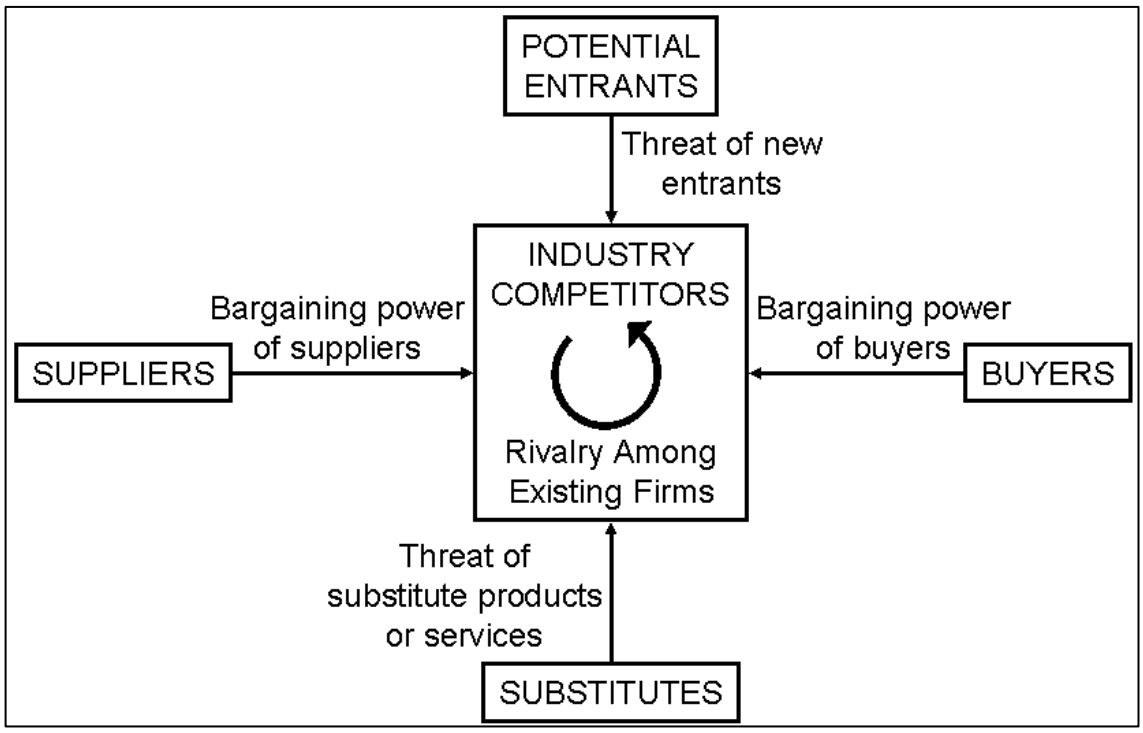


FIGURE 2. Forces driving industry competition (Porter 2004, 4)

Rivalry among existing firms: In every industry with two or more competing companies a certain degree of rivalry exists. It needs to be identified if the industry allows new entrants to have sustainable success. Hooley et al. (2012) stated some factors that should be looked at for identifying the rivalry of the market:

- Market growth
- Exit barriers
- Product differentiation
- Fixed costs

Threats of new entrants: Not only the existing firms compete on the market. It should also be considered that every time a new company enters the market it could take over the competition and thus make the industry less attractive. To identify the possibility for new entrants, the following indicators can be observed:

- Entry costs
- Product differentiation
- Economies of Scale
- Access to distribution channels
- Product differentiation
- Capital requirements
- Switching costs
- Government policy (Porter 2004, 7 – 17.)

Threats of substitute products or services: The imitation of products or services is always a threat for existing companies. With innovations and progress in technology the customer's requirements are shifting as well. Companies should evaluate the threat of substitute and react with continuous product improvement and steady market observation. (Hooley at al. 2012, 69-70.)

Bargaining power of buyers: On markets where customers have significant power the competition is likely to be more intense and, thus, the market less attractive. This is especially the case when there are less buyers on the market then suppliers. Moreover, low switching costs are an indicator for the power of buyers as the companies have greater effort to maintain and keep their customers. (Kotler & Keller 2012, 254.)

Bargaining power of suppliers: Suppliers could have a significant effect on the competition within industry. In case that the providers have more power on the market then the competitors, the attractiveness decreases as they could easily change prices and make a market unprofitable. Signals for powerful distributors are, similar to the bargaining power of buyers, the concentration of them compared to the competing firms. Also if switching costs from one vendor to another are high and the supplied products are strongly differentiated, the industry tends to be less attractive. (Kotler & Keller 2012, 254.)

2.5.3 SWOT-Analysis

The SWOT-Analysis is a framework to identify the current situation of the company. SWOT represents the strengths, weaknesses, opportunities and threats that face a business. While the strengths and weaknesses deals with factors inside the company, threats and opportunities are aspects caused by the micro- and macro-environment. (Hooley et al. 2012, 38.)

Internal factors can be applied from the 5-Forces Analysis, employees, and competitive advantages. Findings from the PEST-Analysis are regarded to external factors and thus are either opportunities or threats for a business. A firm can try to encounter possible threats with internal strengths. The same can be adapted with opportunities facing the weaknesses. The aim is to turn weaknesses into strengths and, hence, gather competitive advantage on the market. Already existing strengths are to be maintained and steadily extended. A SWOT-Analysis should be done every once in a while to keep a clear overview of the business and the market. (Hooley et al. 2012, 38 – 39; Kotler & Keller 2012, 70 – 72.)

2.6 Product research

A product research, with primary data collection method in form of a quantitative online-survey, is the most suitable method to evaluate the requirements for a work-safety software on the target market, and, therefore, the value of *TTurva.*

Quantitative research is based on gathering objective information. The outcome of a quantitative research is generally measured in numbers, for example, how many participants are satisfied with a specific product. A survey is a cluster of questions (so called questionnaire), which have to be answered by the respondents. However, a participation rate of a survey is likely to be low, due to that the survey has to be sent out to a high number of possible respondents in order to get enough responses. (Blythe 2012, 103 – 105.) The survey conducted for this paper has 66 participants. With this amount of respondents it is possible to conduct a thorough and informative analysis.

The most common mistake while developing a questionnaire is to ask the wrong or unclear questions, or even miss to ask for specific information. To evaluate the data thoroughly, it is important to ask for classifying details about the respondents (e.g. age, demographics, profession). The questions about the product or behaviour have to be relevant, unambitious and specific. If not, the respondent is likely to abandon the survey and no, or not enough data will be collected. (Blythe 2012, 103 – 104.)

2.7 Structure of the thesis

The next chapter of this thesis introduces the case company WellWorks Oy as well as the work-safety software *TTurva* with its features and characteristics. Chapter 4 deals with the conducted survey as primary research data collection to evaluate the requirements of a work-safety software. The questionnaire will be described and the results analysed. Chapter 5 is an accurate research of the environment on the target market. The already explained frameworks 5-Forces, PEST, and SWOT will be conducted and interpreted. Finally, a summary of the results of the market research and advices for the further steps to enter the German market are provided.

3 CASE COMPANY AND PRODUCT

3.1 WellWorks Oy

In 1985 the case company has been founded as a Change Management Consulting company concentrating on tailored training projects for staff development. Back in the time, it operated under the name Jussi Rautalampi Oy, but was renamed WellWorks Oy in 2008. In 2003 the company discovered the need of electronic HR (Human Resource) software solutions and decided to develop profit-making tools to foster and enhance employees' motivation. The effective, easy-to-use information systems are marketed under the brand name eHr.fi. During the development phase of the software solutions, WellWorks Oy co-worked with well-known partners like the Finish Biofore Company UPM and Jyväskylä Energy Group in order to gather practical input of prospective buyers and meet the needs of end-users. (eHr.fi n.d.)

FIGURE 3. Logo of WellWorks Oy (eHr.fi n.d.)

Additional to web-based HR solutions, mobile applications complement the possibility to use the softwares of the case company. Furthermore, WellWorks also offers consulting services to social employment. (eHr.fi n.d.)

Following their mission to help clients to develop their business by offering high-quality, functional web-solutions and mobile applications, WellWorks Oy gained positive recognition on the Finish market (eHr.fi n.d.). In 2007, they won the "eEemelikilpailu" award of the Finish e-Learning Centre for the best e-learning solution for a software called *eTaitava* (Figure 4). Back then this mobile based learning tool was an innovative solution to improve communication between teachers and students and to motivate the latter. The jury of the award highlighted the efficiency and the ease of handling in that time relatively new market of mobile applications. (Suomen eOppimiskeskus Ry 2012.)

FIGURE 4. Logo of eTaitava (ehr.fi n.d.)

Furthermore, WellWorks Oy always intends to ensure the best possible quality and service for their customers. They even guarantee a full cash-back in case the client is not satisfied with the solutions or has not been delivered as promised. (eHr.fi n.d.)

3.2 TTurva

TTurva is a work-safety software developed by WellWorks Oy and is marketed under the brand name eHr.fi. The main functions are to report potential safety hazards and work-related accidents. It aims to raise awareness among all members of an organisation to have an eye on sources of danger and report them immediately and, hence, to decrease the number of incidents. Every employee can report incidents or observation just by filling out the report form in the software. The program asks for all relevant details that are necessary to fix and remove the safety hazards and make the whole company a saver place for everyone.

Generally, the software distinguishes between three types of incident reports: the safety observation, close-call notification and accident report. In the following part these three types will be explained more detailed. It is important to mention that the information that are required for each report can be adjusted by every company regarding their needs. The prompts in this paper are from the standard software and contain all relevant points that have to be reported.

3.2.1 Safety observation

The safety observation is any observation that is discovered inside the organisation that should be examined and fixed. The source of danger is not that serious that it necessari-

ly results in an accident but either way should be removed in time. An appropriate example is a slippery stairway in a factory. The reporter of the source can fill out the safety observation form by entering the following information:

- Handler of the observation: Person who receives the report and should take care of further actions.
- Time and place of observation (physical place and department name where the observation was done)
- Textbox for detailed description
- Possibility to add files, e.g. pictures, documents.

Once the observer has sent out the report, the handler receives it on its screen. Next to the basic information given by the reporter, these additional points are to filled out:

- Statement of the handler
- Possibility to choose a responsible person who should take action and a supervisor to control the outcome
- Deadline
- Selection of state of implementation: Is the work fulfilled, in action or not done so far

3.2.2 Close-call notification

The close-call notification deals with more severe hazards that are likely to lead to an accident where someone could have been injured, but so far has not. It can be described as an “almost accident”, for example a safety device for protecting staff from a dangerous machine is broken. Additionally, to the basic information provided at the safety observation, the following multiple-choice questions have to be answered by the reporter:

- Factors that caused the close-call, e.g. carelessness, insufficient or wrong information/working instructions, etc.
- Situation to which the close-call applies to, e.g. shutting down of machine, maintenance construction, regular use, machine was breaking, etc.
- Possible outcome/consequences of the close-call, e.g. employee could have been injured, machine could have been broken, environmental damages, etc.
- Severity of the close-call: little, harmful, serious

- Was the work permit correct? Yes, no, no work permit required.

The handler, on the other hand, also has some more details to provide once he/she received the notification:

- Suggestions for people to form a research group to address the close-call
- Suggestions to prevent the close-call
- Immediate actions until suggestions will have been implemented.

3.2.3 Accident report

If an accident indeed happened, that means a human being got injured physically, the accident report record all the important details about the circumstances that lead to the incident and the effects of it. Next to time and place of the incident, the following information are essential to state at the report:

- Type of accident: Workplace- or commuter accident
- Detailed description of the progression of the accident.
- Working situation, e.g. normal operation, electrical fault, maintenance work, etc.
- Factors that caused the accident, e.g. human error, carelessness, etc.
- Eye-witness (name, company, phone number)
- Information regarding the injured party:
    - Person
    - Employer
    - Profession
    - Work experience (0-5 years, 6-10 years, over 10 years)
    - Work shift (Start and end hour)
    - Did the injured person stop working after incident occurred? Yes, immediately, no
    - Where has the injured party been sent? Hospital, medical care centre, first-aid centre, etc.
    - When did the medical care begin? Immediately, later
    - Nature of injury
    - Body parts which got injured
    - Severity of injury and estimation of how many days the injured party will be out of work

The information of the injured party are crucial for a accurate report to the social health insurance and German Social Accident Insurance Institution, which is in charge of work-related accidents. The report to the institution is defined in the German Social Security Statues §193 VII and according to that, employers have to report accidents within three days to the Insurance Institution if the injured party is more then three days incapable to work.

Additionally, the handler provides the following further details:

- Consequences of the incident
- Was the work permit correct? Yes, no, no work permit required.
- Actions to prevent similar situations, e.g. safety workshops
- Immediate actions to fulfil.

3.2.4 Analysis of reports and additional attributes

Entitled users of *TTurva* have the possibility to analyse reports that have been done within the organisation. It can be filtered for specific time intervals and for any data that has been entered, for example, pending observations or notifications can be marked and monitored. Furthermore, the amount of a specific kind of report can be checked. This tool has the advantage that supervisors have the opportunity to identify where safety hazards potentially occur more concentrated and hence further prevention actions are to be checked or awareness among employees has to be increased.

Alongside the web-browser software, *TTurva* is also available as a mobile-phone application. As most people have usually their mobile-phone with them, a report of safety observation or close-call notifications can be done immediately and easily. With a mobile-phone application the number of reports is likely to be higher as notifications can be done directly and the threat of forgetting it until the reporter have access to a computer is diminished.

3.2.5 Benefits of TTurva

For companies it is very important to identify safety hazards and investigate close-call incidents. It not only prevents damage to people and equipment, it also increases profits as accidents usually have a negative outcome due to high insurance payments, loss of man power in case of absence of injured workers and costly maintenance work that could have been done cheaper beforehand. Furthermore, employers have a responsibility to provide a safe workplace for their employees. A thorough investigation of close-call contributes to a safe work-environment by minimizing the risk of possible accidents.

Dr. Ulku Oktem created an 8-step program for a successful close-call management (Oktem used the term "near miss" instead of "close-call") to prevent and avoid accidents in the first place:

1. Create a clear definition of a near miss.
2. Make a written disclosure and report the identified near miss.
3. Prioritize reports and classify information for future actions.
4. Distribute information to the people involved in the near miss.
5. Analyze the causes of the problem.
6. Identify solutions to the problem.
7. Disseminate the solutions to the people impacted.
8. Resolve all actions and check changes. (Howard 2012.)

These steps cannot be executed solely with a software solution. The management of a company has to fulfil the steps for successful accident prevention. However, WellWorks' *TTurva* is a great tool to actively support the safety management with the possibility to do the notifications, distribute information and track resolutions.

Additionally to these steps, Howard (2012) highlights the need of involving employees in the process of identifying close-call incidents. Every single member of an organisation has to have the awareness of the severity of close-calls and has to have the opportunity to report saliences easily and thoroughly. Like the other steps, *TTurva*, too, contributes with the ease of doing notifications via the web-browser software or mobile application.

4 DATA COLLECTION - SURVEY

As it has already been presented in Chapter 2.6 a quantitative online survey with the title "Survey about reporting and prevention of safety observations and sources of danger at the work place" has been conducted to evaluate the requirements of a work-safety software in Germany. The questionnaire is listed in Appendix 1.

4.1 Planning process

In his book, Brace (2008) stated that next to the required information directly dealing with the overall topic, secondary information for analysing purposes are important, as well. The survey for this thesis contains questions for classifying the participants about the type and size of organisation and the department where the participant is working in (Question 1, 11 & 12). Supplementary, it has been asked for the gender of the participants and the amount of work-accidents that have been occurred within the last 12 months in the organisation (Question 10 & 13.)

The main questionnaire is basically divided into three parts. While the first part (Question 2, 3 & 9) is about work-safety software's in general, the second part is questioning about already existing work-safety software (Question 5, 6 & 7.) As these questions are just targeting people whose company is having a work-safety software, an exclusion question (Question 4) was inserted to address the correct people. The excluded people were directly redirected to the next part of the main questionnaire. The third main topic (Question 8) is dealing with *TTurva*. A screenshot of a safety observation reporting has been placed and an evaluation question has been asked to achieve an insight about customer's attitude towards the software of WellWorks Oy.

4.2 Analysing the results of the survey

The survey has a participation rate of comprehensive 66 responses. The majority of 26 % is working in manufacturing companies, which at the same time represents an interesting target industry for WellWorks Oy. Nevertheless, the participation of all industries is in equilibrium (Figure 5).

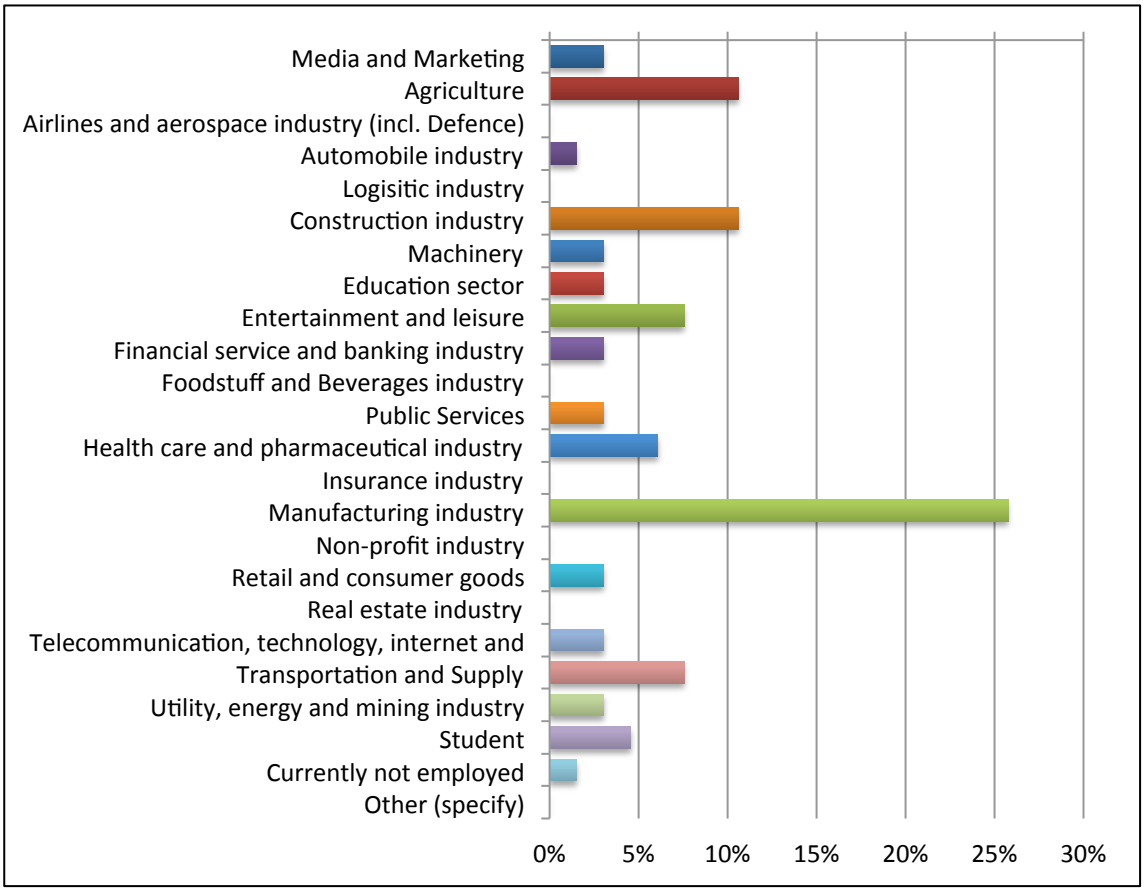


FIGURE 5. Industries according to the participants

The size of the companies is mainly up to 500 people, whereas 42 % of the respondents are working in companies with 50 to 500 employees (Figure 6).

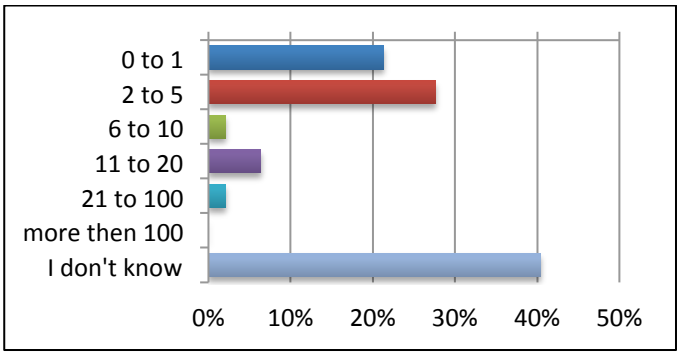


FIGURE 6. Size of the companies

Within the organisations, 21 % are working in management or management department, which is highly valuable for the validity of the survey as the management of a company mainly conducts software purchases. Furthermore, 13 % are responsible for the work-

safety environment of a company, their expertise and evaluation is highly valuable for this survey (Figure 7).

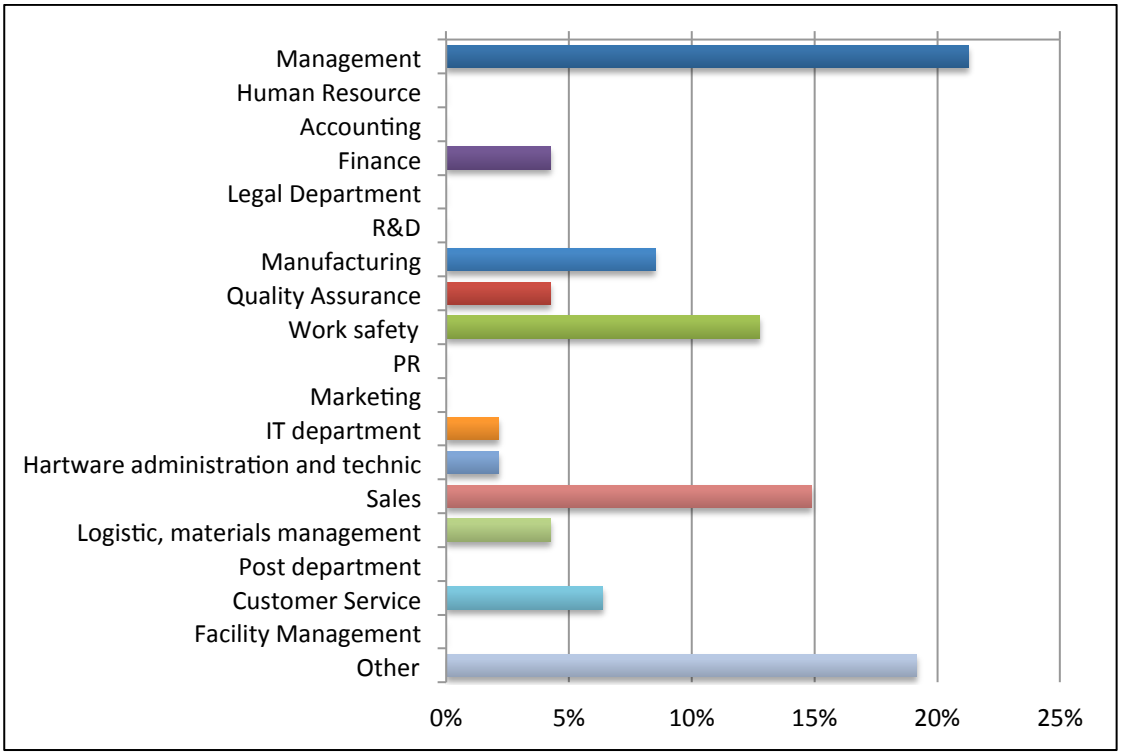


FIGURE 7. Departments where the participants work in

One major aspect for conducting this survey was to identify features of a work-safety software that are seen as important by potential end-users. For this purpose a balanced scale question (Question 2) has been asked. Ten different features were stated with the request to evaluate them in an interval from "very unimportant to very important" (Figure 8). The possible responses are sorted in descending order based on "very important and important". WellWorks Oy has from the first six features all included in *TTurva* except the integration of safety guidelines and standards (In general all features from this list are included except the already named and integration of first aid instructions and first aid log).

Additionally to these features, a further open question (Question 3) has been asked to identify more prospective important features for a work-safety software. Among the responses, especially an easy handling and the possibility to allocate different access right (especially important for sensitive data protection) were important. Both features are also supported by *TTurva*.

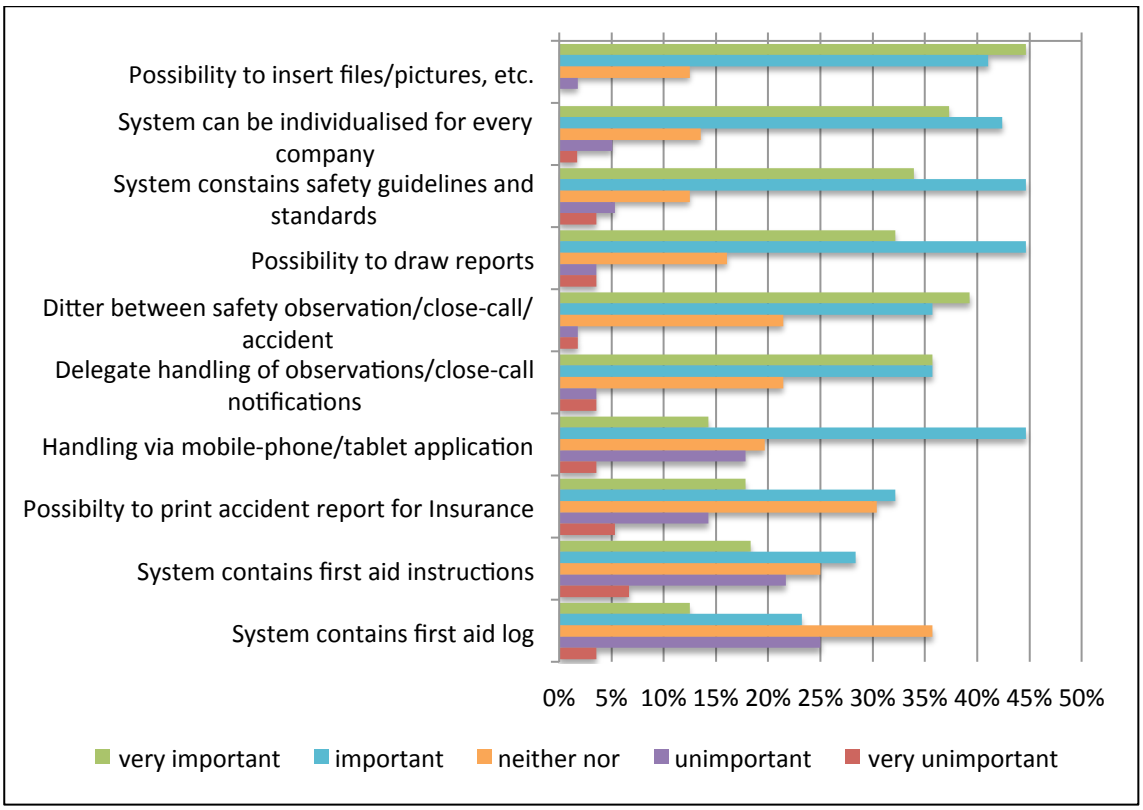


FIGURE 8. Features of a work-safety software

Among all participants, 65 % are currently not working with a work-safety software in their organisation (Question 4). This relatively high number proves the unsaturated market WellWorks intends to work in. The survey continues with questions, which just addresses the participants who are already having such a software in order to evaluate their satisfaction with it (Question 6). Three thirds of them are satisfied with their current software solution, especially due to the ease of its handling and its comprehensive features. The unsatisfied 25 % of the users are unsatisfied and complaining about cumbersome handling and a hence resulting low level of safety-hazard reporting. Figure 9 gives an overview of the features, which are available at the software the participants are currently working with and have been seen as important to very important (Question 2). It can generally be said that the important features are present in already implemented softwares except the possibility to work with the program on mobile devices or tablets. Additionally, first aid instructions are mostly not included, but the majority of all participants are not in desperate need for this feature.

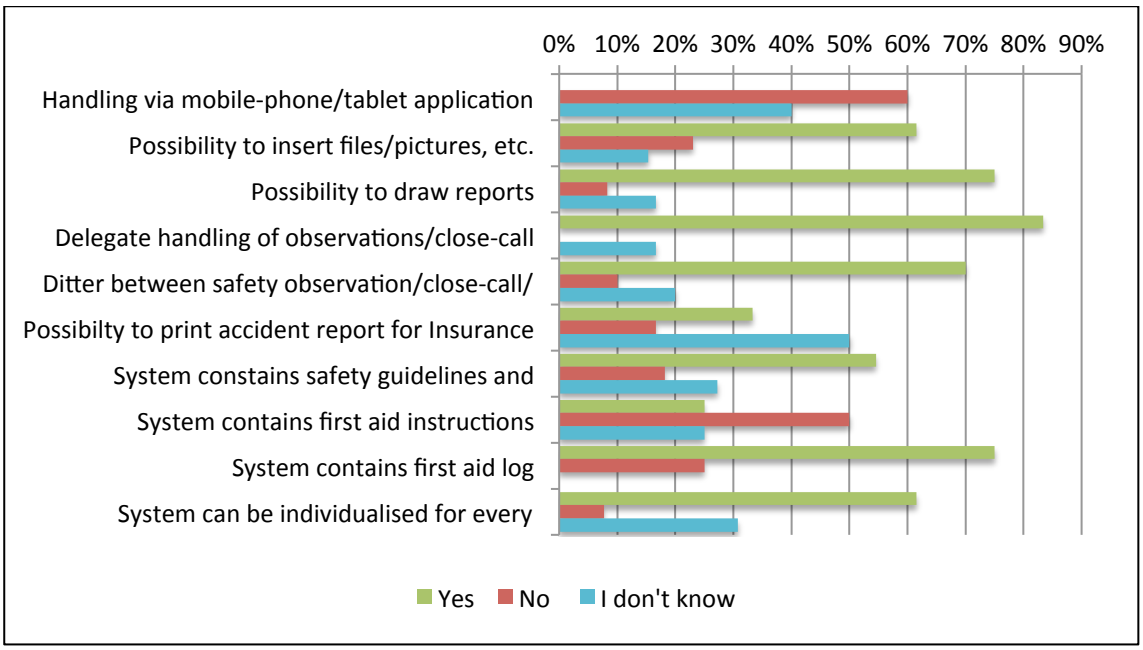


FIGURE 9. Availability of important features in current software's used by participants

One major point for conducting this survey was the participants' opinion of *TTurva*. To evaluate this goal, a screenshot was displayed, which demonstrates the reporting of a safety observation (Figure 10).

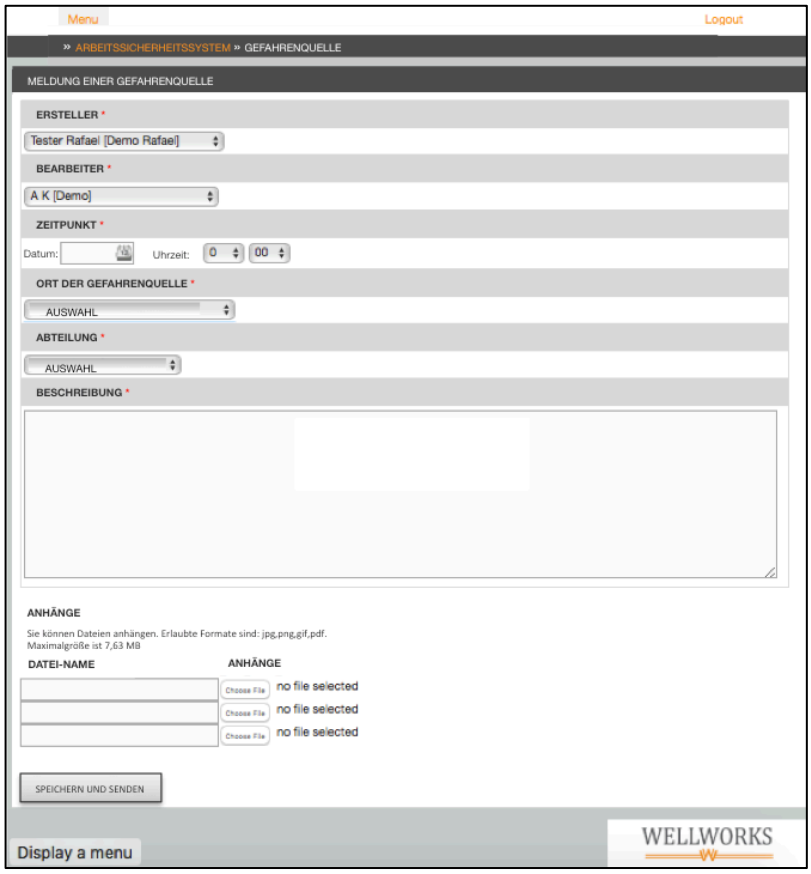


FIGURE 10. Reporting of a safety observation in TTurva

Generally there is an affirmative attitude towards the structure, layout and design of *TTurva* (Figure 11). This represents for WellWorks Oy a very positive and beneficial outcome, as these points have in previous questions always been seen as important factors among the potential users of *TTurva*. In addition, the number of reported safety hazards are likely to rise and hence would benefit for a safer environment in the organisations. However, 6 % of the participants would absolutely not recommend WellWorks' software. It is only possible to speculate about this number, but nevertheless it is a relatively small number of un-acceptance towards a product.

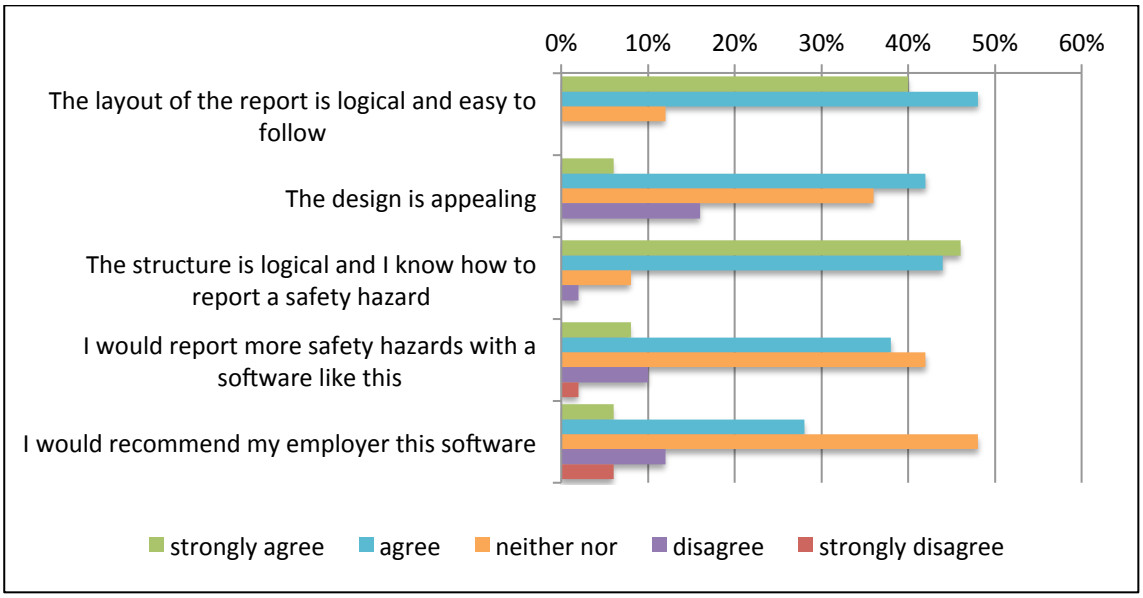


Figure 11. Participants' attitude towards TTurva

5 ENVIRONMENT ANALYSIS

5.1 PEST Analysis

This chapter gives insight in the macro environment of Germany and highlights the factors that might have an impact to WellWorks Oy and its product in charge *TTurva*. As already discussed in the previous chapter, PEST focuses on four different parts: while the political part focuses on current legislation regarding safety at the work place, the economic part stresses the economy and future prospects of specific industries. The social environment gives insight into cultural aspects and differences of Germany compared to Finland. At last the technology part considers digitalisation factors in Germany. The findings of the PEST analysis provide threats and opportunities, which WellWorks will face when entering the German market.

5.1.1 Political

The government of the democratic Federal Republic of Germany gives free hand to the industry and commerce in its industrial and economic policy. As long as employment rate is stable and secure, there is no major interference to expect from government's side. Also, the government is following a policy towards total equality among companies and against abuses of certain industries. An entry of new businesses is welcoming and seen as enrichment to the current competition, which is in favour of WellWorks as a new and foreign player on the market. (Miles 2014, 14 – 17.)

A political issue to observe for entering a foreign market is the possible restriction for foreign companies. As both, the host country and the target country are members of the EU (European Union), no specific restrictions are given. As mentioned above, every new business – regardless if it's a domestic company or from abroad, is treated equally. EU members form together the European Single Market, allowing a free movement of goods, capital, service and people within the common area. WellWorks Oy currently plans to sell *TTurva* in Germany via a sales representative. It would be considered as a free movement of service and hence regulated and approved by law. (European Commission n.d.)

The German ‘Arbeitsschutzgesetz’ (Working Condition Act) defines thoroughly that the employer has to provide a safe work place with adhering safety standards and guidelines that have been imposed by the German Statutory Accident Insurance. It is also the supervising entity by law for controlling companies to stick to the established guidelines. It is the employer’s responsibility that all safety precautions are appropriate and in case of lack to eliminate the defect. Nevertheless, the employees as well must care for safety with a correct behaviour according to the safety standards and guidelines, handling of equipment and care for co-workers in need. (ArbSchG.) In case of a severe accident with a person incapable to work for more than three days, the employer has to report the incident immediately to the Insurance Institution (§193 SGB VII). As already mentioned in Chapter 3.2.5, *TTurva* contributes indirectly to a safer environment with supporting all members of an organisation to observe possible safety hazards and prevent negative incidents. (ArbSchG; SGB VII)

5.1.2 Economical

Germany is economically strong situated with contributing one fifth of the EU’s GDP (Gross Domestic Product), representing the largest economy in the Union. While Germany’s economy had a significant burst in 2009 during the worldwide financial crisis, it has been recovered fast to the pre-crisis level. For 2016 and 2017, a GDP growth of annually 1.8 % is estimated and the unemployment rate is considered to decrease. The economic situation and the forecast add up to an interesting country for doing business in. (European Commission 2016.)

In his report for PwC, Miles (2014, 10) considers that “the most exciting prospects today are offered by industries in the forefront of technology and by the providers of sophisticated technical, commercial and financial services.” WellWorks Oy, as a software solution provider is thus operating in an industry which is generally seen as flourishing and thriving, making the economical environment on the target market even more interesting and promising.

Another important factor of Germany’s well-performing economy is its strong export figures. German’s industry manufactures more then end-users consume, making the

whole economy orientating towards manufacturers. As this industry provides prospectively the main clients for WellWorks Oy, the economy once more reflect benefits for expanding to Germany. (Miles 2014, 11.)

5.1.3 Social

Prospective customers for WellWorks Oy, especially manufacturer and energy providers, are widespread in Germany. Table 1 indicates the total amount of companies within its industry in 2014. To have a clearer understanding about the size of the organisations, the publisher of the statistic – the German Statute Accident Insurance - has partitioned the table according to the amount of employees. The industrial sector is divided into nine different industries, which in the same time form subsidiaries of the German Statute Accident Insurance, the so-called BG's (Berufsgenossenschaften, German Social Accident Insurance Institution). These BG's are in charge for the operational work of the accident insurance, e.g. paying compensation and collecting contributions. The statistic proves the density of companies who are initially seen as prospective clients for WellWorks Oy. Especially the companies belonging to the three first named BG's can be in high interest to the case company, according to the similarity of *TTurva's* current users in Finland.

TABLE 1. Companies by size in 2014 (DGUV 2014, modified)

	Number of companies with full time equivalent employees					Companies total
	Up to 9	10 to 49	50 to 249	250 to 499	500 and more	
Accident insurance in industrial sector	**2,910,345**	**325,843**	**67,497**	**8,630**	**6,468**	**3,323,046**
BG for the raw materials and chemical industry	24,155	5,691	2,958	533	375	33,712
BG for the woodworking and metalworking industries	167,267	35,597	9,421	1,352	862	214,499
BG for the energy, textile, electrical and media products sectors	177,486	25,051	7,283	1,064	765	211,649
BG for the building trade	242,111	31,298	3,900	314	189	277,812
BG for the foodstuffs and catering industry	214,192	28,295	4,602	501	267	247,857
BG for the trade and distribution industry	373,325	41,527	9,430	959	997	426,238
BG for the transport industry	172,408	18,694	3,377	269	137	194,936
BG for the administrative sector	977,864	93,810	17,812	2,462	1,832	1,093,780
BG for the health and welfare services	561,537	45,880	8,714	1,176	1,044	622,563

Germany and Finland have had a close business relationship for years and respect each other deeply. One reason for that is the similarity of business culture and communication. Both countries act and communicate direct and straightforward with their words and at the same time speak rather quiet. When doing business in Germany, it is not mandatory to speak German but it is definitely an advantage, especially for business making with smaller companies. One factor that has to be considered is that in Germany it is mandatory to confirm contracts, meetings, etc. in written form and not only in oral communication. In Finland, however, a handshake is considered as a verbal commitment and agreement. In general, Finish business representatives are highly respected and trustworthy in Germany. (Passport to Trade 2010a; Passport to Trade 2010b.)

5.1.4 Technological

Digitalisation in medium-scale enterprises is not developing as fast as in other country of the EU. *TTurva* can be seen as a digitalisation software with the opportunity to save resources and increase efficiency with working online instead of with "old-fashion" paper. However, Pudzich (2015) discovered in his survey about environmental friendliness among German offices that there is still a lot of room for improvement. More then a third of all participants stated that the organisation they are working in could do more to be environmentally friendlier. Even 60 % are aware that the paper wastage is way to high and could be reduced easily. A higher awareness of digitalisation is definitely in need, especially as Germany is seen as one of the pioneers in technology, engineering and innovation.

5.2 5-Forces

In the next part of this chapter the author will provide the reader with an implementation of the 5-Forces on the case company.

5.2.1 Rivalry among existing firms

Although it is quite common to insert a competitor analysis in the 5-forces analysis, a thorough comparison of existing work-safety software is not possible, as every company offers highly diversified software with different features. Detailed information on the different programs are mostly not available, since the software solutions on the B2B market are commonly sold by sales representatives, who keep the availability of online information as low as possible in order to offer specialised software's for every single customer. However, the software, which was most named among participants on the survey was Enablon. According to their webpage, Enablon's incident management solution is used by more then one million users in 160 countries (Enablon 2016). Although a market share is indefinable, it can be concluded that Enablon represents the market leader among work-safety software.

As it has been described in Chapter 2.5.1, the rivalry among existing firms in an industry can give indication whether or not a new market entrant can have success in the long-term. The intense of rivalry on the market for work-safety solutions in Germany is rather low. This is justified with the growing market for technology provider (see Chapter 5.1.2) and low exit barriers for current companies in the industry, as technology companies do not have high assets or fixed costs that force a company to stay on the market. However, an obstacle for leaving a market could be promised service contracts with customers. Another indicator for a low rivalry is the high differentiation and specialisation of *TTurva* and the competitor's solutions. In markets with mostly differentiated products, price warriors among competitors are missing and the buyer's decision for a product is mostly based on other factors like available features or customer service. (Porter 2004, 17 – 20.)

5.2.2 Threats of new entrants

In the target market of WellWorks Oy, there is a relatively high threat of new entrants. This is on the one hand a degrading of attractiveness of the target market for existing companies, on the other hand an indicator for the case company as an entrant that it is easy to find customers in Germany. Signals for a high threat of new entrants are the low entry costs and capital requirements of potential new players on the market. A technology company generally does not need high assets and does not have high fixed costs that would discourage organisations to enter a foreign market. Additional, the lack of distribution channels and government restrictions (see Chapter 5.1.1) contributes to a likeliness of new competitors.

However, high switching costs of prospective customers to another software could deter companies to operate on this market. Once a software is installed, a company is probably not changing to another solution as the effort and costs to do this are extremely high (e.g. a software often have to interfere with other programs). Moreover, the economies of scale, the phenomenon that unit costs decrease over a period of time due to learning experience, are high in the industry of software providers. Established companies have their standard software, which will be adapted to every single customer regarding their needs.

Summarized it can be said that the threat for new entrants exists but established companies with experience in the field of expertise are better situated and have more benefits towards competitors.

5.2.3 Threats of substitute products

In terms of technology advancement or innovation there is just a low if even a threat for substitute products. *TTurva* is a software, which operates through a normal web-browser or application for smart phones and tablets. Even in case of product advancement of end devices, WellWorks' software is still usable and does not need to be adapted. In addition, *TTurva* serves towards a specific aim, to increase safety and its awareness at the work place. A threat of substitute products does, therefore, not exist. Nevertheless, it should be mentioned that competitors could adapt their solutions and add additional features to their work safety software and, hence, exceed the offer of WellWorks. Thus, the differentiation of the software hence is a higher threat then substitutes by itself.

5.2.4 Bargaining power of buyers

As it has been introduced in Chapter 2.5.2, a market with a high buyer's power is likely to be more intense and contested among competitors. Porter (2004, 24 – 27) identified some circumstances, which indicate a buyer's market:

TABLE 2. Indicators for bargaining power of buyers on the target market in question

Circumstance:	Case in the target market?
Large volume purchases	**No** – One software for one company
The product represents a significant fraction of the buyer's costs	**No** – A work-safety software represents a small, and one time cost-purchase
The products are standard or undifferentiated	**No** – As it has been explained previously
Switching costs are low	**No** – As it has been explained previously
The product is unimportant to the quality of the buyer's products or services	**Yes** – A work-safety does not add quality to the product or services

Table 2 gives a very good impression that buyers do not have significant power within the industry and, thus, does not make the market less attractive. Hence, competition on

the market is not significantly affected by prospective customers but just between competitors themselves.

5.2.5 Bargaining power of suppliers

As WellWorks Oy does not have any suppliers for *TTurva*, a bargaining power of suppliers does not exist on the target market. Technology companies generally do not have components, which have to be purchased at suppliers since they are developing the software by themselves.

5.3 SWOT

As it has been described in Chapter 2.5.3 the SWOT-Analysis is an internal and external analysis of the current situation of a company. The data with which this framework (Figure 12) is filled are mostly information that have been analysed previously in this thesis. The PEST-Analysis gave insight into the external opportunities and threats, which WellWorks will face when entering the German market. The internal strengths and weaknesses have mostly been identified with Porter's 5-Forces framework. Additionally, the survey gave further information on strengths and weaknesses that faces *TTurva*.

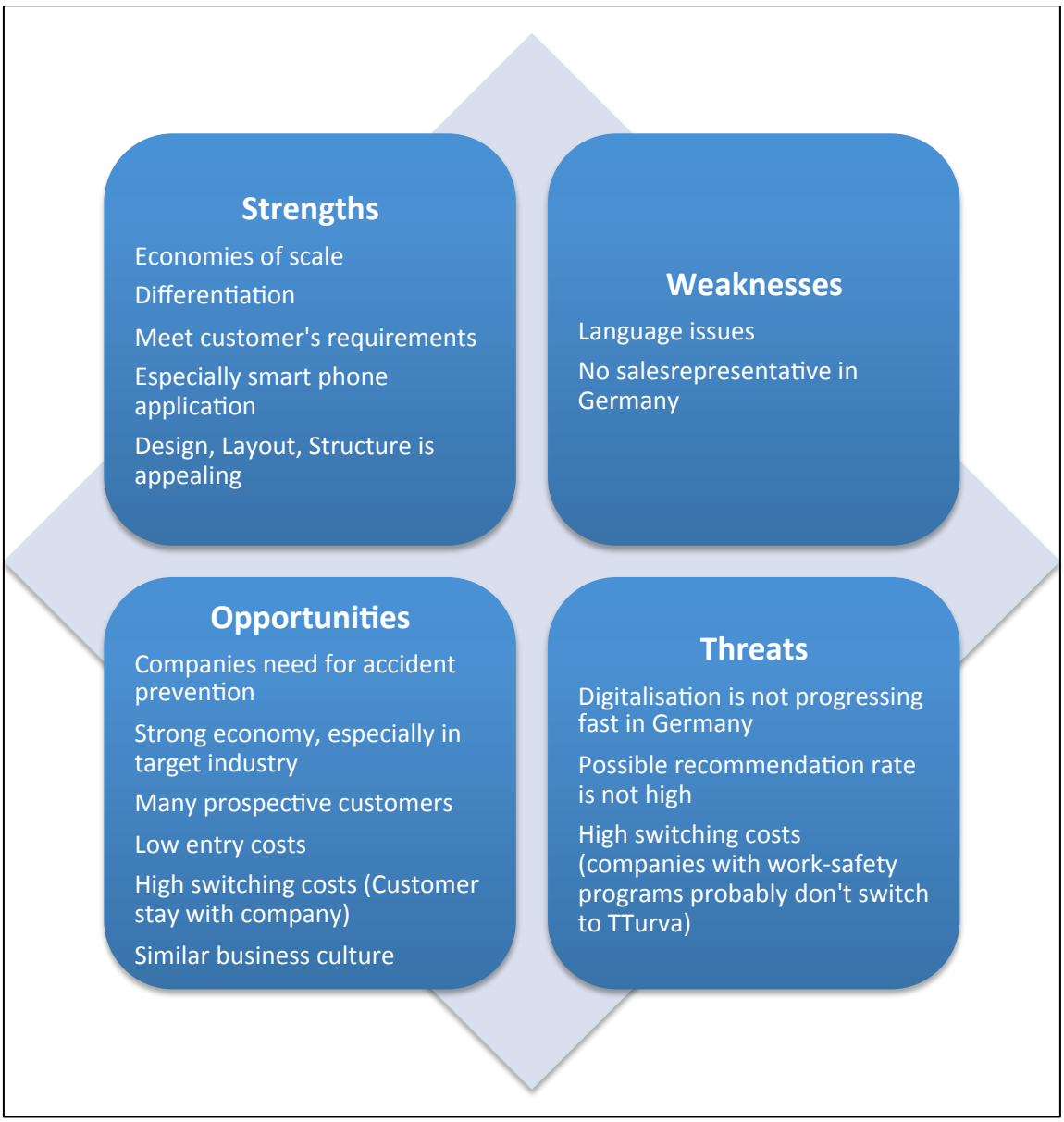


FIGURE 12. SWOT-Analysis of WellWorks Oy

While WellWorks gained a lot of strengths since *TTurva* meets the requirements for a work-safety software among prospective customers, it struggles with the lack of an English or German version of the programme. Even though English language is wide spread in Germany, a work-safety software should be in German, especially as it aims to increase a safer work environment with an easy-to-handle tool. But, of course, this weakness is easy to address and hence does not a severe disadvantage of *TTurva*.

A further weakness is that so far WellWorks does not have a sales representative to count on and whom the company needs for doing a successful market entry. Like the language issue, this is a minor weakness and WellWorks will not face difficulties in

finding trustworthy sales vendors for selling *TTurva*. When the case company will have found one, the lack of German knowledge is remedied, as well.

WellWorks has great opportunities on the German market. Not only the growing economy is in favour for the case company, also the huge number of companies, which represent possible customers, is promising a successful market entry. The similar business culture is as well beneficial for WellWorks, as the company does not have to adapt severely for conducting business. For the market entry process, no high costs are expected as the software is already developed and only has to be adjusted for every single customer, like it is already the case on the home market. Once a company has bought *TTurva*, it is likely to stay with WellWorks due to the high switching costs.

However, these high switching costs could be also a threat to WellWorks. Major purchases will be thoroughly checked by purchasers of the companies and the decision making process is likely to be long. Nevertheless, the strengths of *TTurva* are not to be underestimated and address this threat. As it has been explained in chapter 5.1.4, the digitalisation in Germany and hence the switching from paper forms to software solutions is not progressing fast. With good sales representatives it is possible to convince prospective customers of the benefits of a work-safety software like *TTurva*, as also the acceptance on the German market is given. Organisations are aware of the fact that they have to provide a safe work environment and TTurva can absolutely contribute to this issue.

Summarized it can be said that even though there are some threats and weaknesses for WellWorks, the opportunities and strengths are more then present and have the possibility to address the negative factors perfectly. WellWorks Oy is currently in a good position to conduct a successful market entry in Germany.

6 SUGGESTIONS

TTurva is based on the previous conducted market research a suitable and certainly accepted product on the German market. The features of the software are comprehensive and meet the needs of the target customers. However, as mentioned above, *TTurva* should be available in German language.

WellWorks decision to hire a sales representative in Germany for building up connections, finding new customers, and being the link between the software developer in Finland and the customers in Germany is the most suitable approach as a market entry strategy. A direct export strategy (no third party is involved) is especially suitable when no physical products are involved and, hence, no distribution channels and storage locations are needed. The sales representative acts on behalf of the exporting company and gains no contractual ownership of the products. He/She usually works for a commission based on generated revenue. The advantages are the low risks involved in this foreign entry strategy and that the sales representative is doing client acquisition. For WellWorks Oy it is definitely the most suitable and less-risky strategy to enter the German market. (Export.gov 2012.)

When entering a new market it is advisable to attend industry specific trade shows. This is not only important for customer acquisition and network building, but also for identifying the newest trends which are important to adapt the product to remain successful and always meet the customers' needs. Moreover, direct competitors are likely to be present and it's always important to keep informed about them, especially in case of *TTurva*, where information of competitors' work-safety solutions are hard to find. Germany hosts many trade fairs, a lot of them are specialised in work-safety issues. Table 3 shows the most interesting trade fairs in Germany for WellWorks Oy.

TABLE 3. Important trade fairs for WellWorks (Messen 2016)

Trade fair	City	Content	Time
A+A	Dusseldorf	World's largest and most important specialist trade of safety and security.	October 2017
Corporate Health Convention	Stuttgart	European exhibition for workplace health promotion and demography	May 2017
Arbeitsschutz Aktuell	Hamburg	Safety business, Corporate health, Personal work safety	October 2016

7 CONCLUSION

When asked the participants of the survey why every company should have an accident prevention software, the overall opinion is the risk minimization and process simplification that brings the software with it. Employers seek to provide a safe work atmosphere and environment and protect their employees. The process simplification, on the other hand, is another beneficial factor for every company as it reduces costs and work-load. Even though it was mentioned previously that Germany is not progressing very fast in digitalisation, German organisations are looking for simple solutions to ease processes. The possibility that at the same time the safety at the work place increases is just another beneficial factor for a work safety software.

But how can the results, which had been conducted for this thesis, be evaluated? Of course, a survey should be in correct wording, format and structure. Yet, the most important factors that should be evaluated for identifying the correctness of a survey are the reliability and validity of the results. (Mora 2011.)

The validity of a survey considers the accuracy of the questionnaire and, thus, the results. Common literature breaks down the validity in three different sub-types of validity:

- **Content validity** deals with the topic of the survey and that no key subjects are excluded from the survey. The content of the survey in charge aimed to identify the requirements of a work-safety software in Germany and to evaluate the value of *TTurva*. The content is valid as the participants could state weather or not a work-safety software is necessary and if stated features of such a software are important or not. For assessing the value of *TTurva* a screenshot was depicted to classify the personal opinion towards this software.
- **Internal validity** of a survey is given if the questionnaire is providing the wished and planned outcome. The results of this survey are exactly like it was planned from the beginning – to identify the requirements of prospective users towards a work safety software in Germany and to evaluate the value of *TTurva*.
- **External validity** refers to the adaptability of the results on the overall target market. The survey gained 66 participants from different branches and different functions within the organisations. For a bachelor's thesis survey, the amount of

responses is satisfying and the diverse participants are indicative of a high external validity.

According to Brace (2008, 174) a survey's "questionnaire is reliable if it provides a consistent distribution of responses from the same survey universe." In other words a survey is reliable if in case of a repetition the results and outcome are the same or similar to the first measurement. A common tool to examine the reliability is to let participants do the survey twice. While doing this it can be checked if the respondent gives the same answers. Nevertheless, such an approach is inconvenient and time-consuming. Furthermore, the participants could learn from the first time he/she did the survey and hence the reliability is distorted. It is clear that it is not easy to prove a survey on its reliability, but there are some questions that conclude on a reliable survey. (Brace 2008, 174 – 175.)

1. "Do the questions sound right?
2. Do the interviewer understand the questions?
3. Do respondents understand the questions?
4. Have we included any ambiguous questions, double-barrelled questions, loaded or leading questions?
5. Does the interview retain the attention and interest of respondents throughout?" (Brace 2008, 175)

Brace wrote in his book about the reliability of qualitative face-to-face interviews. However, the questions for indicating the reliability can also be adapted and used for quantitative online-surveys.

The survey in this thesis was written and proved on these questions. The questionnaire was clearly structured, without any ambiguous questions and understandable for the participants. Hence the reliability is given and in case the survey will be repeated, it is likely to achieve the same results again.

REFERENCES

Blythe, J. 2012. Essentials of marketing. 5th edition. Harlow: Pearson Education.

Brace, I. 2008. Questionnaire design: how to plan, structure and write survey material for effective market research. 2nd edition. London: Kogan Page.

DGUV. 2014. Companies by size in 2014. Printed 30.03.2016. http://www.dguv.de/en/facts-figures/insured-person-companies/company-size/index.jsp

Diemer. n. d. Kosten eines Unfalles. Printed 17.05.2016. http://www.diemer-ing.de/newsletter/2007-09/Wirtschaftliche_Aspekte_Praevention.html

eHr.fi. n.d. Yritys. Printed 18.03.2016. http://www.ehr.fi/www/yritys

Enablon. 2016. Incident/Even Management. Printed 11.04.2016. http://enablon.com/applications/incident-management

EU-OSHA. 2001. Prävention von Arbeitsunfällen durch Ausrutschen und Stolpern. Pinted 17.05.2016. http://re.srb-group.com/web/images/pdf/infomaterialien/osha-d/facts14_de.pdf

European Commission. 2016. Economic and Financial Affairs: Germany. Printed 04.04.2016. http://ec.europa.eu/economy_finance/eu/countries/germany_en.htm

European Commission. n. d. The European Single Market. Printed 28.03.2016. http://ec.europa.eu/growth/single-market/index_en.htm

Export.gov. 2012. Chapter 5: Methods and Channels. Printed 20.04.2016. http://www.export.gov/basicguide/eg_main_038338.asp

Export.gov. 2015. Doing Business in Germany. Printed 29.03.2016. http://www.export.gov/germany//MarketResearchonGermany/CountryCommercialGuide/DoingBusinessInGermany/index.asp

Hofstede, G. 2010. Cultures and Organizations: software of the mind: Intercultural co-operation and its importance for survival. 3rd edition. New York: McGraw-Hill.

Hollensen, S. 2001. Global marketing: a market-responsive approach. 2nd edition. Harlow: Pearson Education

Hönl. n. d. Kostenfaktor Sicherheit im Betrieb. Printed 17.05.2016. http://www.bvmw.de/fileadmin/download/Land_Thueringen/Unstrut-Hain-ich/Bilder/Vortrag_Kostenfaktor_Sicherheit_im_Betrieb_M.Hoenl_BVMW_24092013.pdf

Hooley, G., Piercy N. F. & Nicoulaud B. 2012. Marketing strategy & competitive positioning. 5th edition. Harlow: Pearson Education.

Howard, K. 2012. Near misses: Everybody gets to go home in one piece. Safety + Health. Printed 23.03.2016. http://www.safetyandhealthmagazine.com/articles/6843--articles-6843-everybody-gets-to-go-home-in-one-piece

Kotler, P. & Keller, K. L. 2012. Marketing management. 14th edition. Harlow: Pearson

Messen. 2016. Messekalender Arbeitsschutz. Printed 20.04.2016. http://www.messen.de/de/1006/branche/arbeitsschutz?offset=0

Miles A. 2014. Doing Business and Investing in Germany. PricewaterhouseCoopers.

Mora M. 2011. Validity and Reliability in Surveys. Printed 08.06.2016. http://www.relevantinsights.com/validity-and-reliability#sthash.CJ1zYYaW.dpbs

Passport to Trade. 2010a. Business communication in Finland. Printed 31.03.2016. http://businessculture.org/northern-europe/finland/business-communication/

Passport to Trade. 2010b. Business communication in Germany. Printed 31.03.2016. http://businessculture.org/western-europe/business-culture-in-germany/business-communication-in-germany/

Pihlajarinne. E. Chairman of the Board. 2016. Interview 28.01.2016. Interviewer Wiesendanger, R.

Porter, M. E. 2004. Competitive strategy: techniques for analyzing industries and competitors. New York: The Free Press

Pudzich, C. 2015. Wie grün sind Deutschlands Büros wirklich?. Kyocera Umweltpreis. Printed 31.03.2016. http://www.kyocera-umweltpreis.de/aktuelles/blog///wie-gruen-sind-deutschlands-bueros-wirklich/

Social Security Statute §193 SGB VII
Working Condition Act §§ 3 + 15 ArbSchG

Suomen eOppimiskeskus Ry. 2012. eEemeli 2007 –kilpailun tulokset. Printed 19.03.2016. http://www.eoppimiskeskus.fi/aiempien-vuosien-voittajat/2007-jyväskylän-ammattiopisto-ja-jussi-rautalampi-oy-etaitava

APPENDICES

Appendix 1. Questionnaire of online-survey

Survey about reporting and prevention of safety observations and sources of danger at the work place

Despite improvement of work safety in every organisation occur regularly accidents. However, every company should do the best possible to avoid incidents.

This process starts already with the detection and the removal of potential safety hazards. For example slipping, tripping, and falling are the most widespread cause of accidents among German companies.

But how can be guaranteed that every single person within an organisation keep a watching brief over identification of sources of danger and reports these, as well?

A work-safety software offers the opportunity to report of safety observations and accidents and eases the prevention of these. In this way the work environment is likely to become a safer place for all people within an organisation.

The following survey aims to detect the value and required features of a work-safety software.

I ask you kindly to take time for this survey. The process time is estimated with approximately 5 to 10 minutes.

Best regards

Raphael Wiesendanger

Question 1: Which of the following best describes the principal industry of your organisation?

- Media and Marketing
- Agriculture

- Airlines and aerospace industry (inclusive defence industry)
- Automobile industry
- Logistic industry
- Construction industry
- Machinery
- Education sector
- Entertainment and leisure
- Financial service and banking industry
- Foodstuff and beverages industry
- Public services
- Health care and pharmaceutical industry
- Insurance industry
- Manufacturing industry
- Non-profit organisation
- Retail and consumer goods
- Real estate industry
- Telecommunication, technology, internet and electronics
- Transportation and Supply
- Utility, energy and mining industry
- Student
- Currently not employed
- Other (please specify)

Question 2: How important or unimportant to do consider the following features of a work-safety software?

Response options: Very unimportant, unimportant, neither unimportant nor important, important, very important

- Handling via mobile-phone/table application
- Possibility to insert files/pictures, etc.
- Possibility to draw reports
- Delegate handling of observations/close-call notifications
- Differ between safety observation, close-call incidents and accidents
- Possibility to print accident report for the Insurance Institution directly
- System contains safety guidelines and standards

- System contains first-aid instructions
- System contains first-aid log
- System can be individualised for every company

Questions 3: Are there additional features, which you consider as necessary for a work-safety software?

Question 4: Does your company already work with a work-safety software?

- Yes
- No

Question 5, 6 and 7 are just for participants who choose 'yes' in question 4. All others continue directly with question 8.

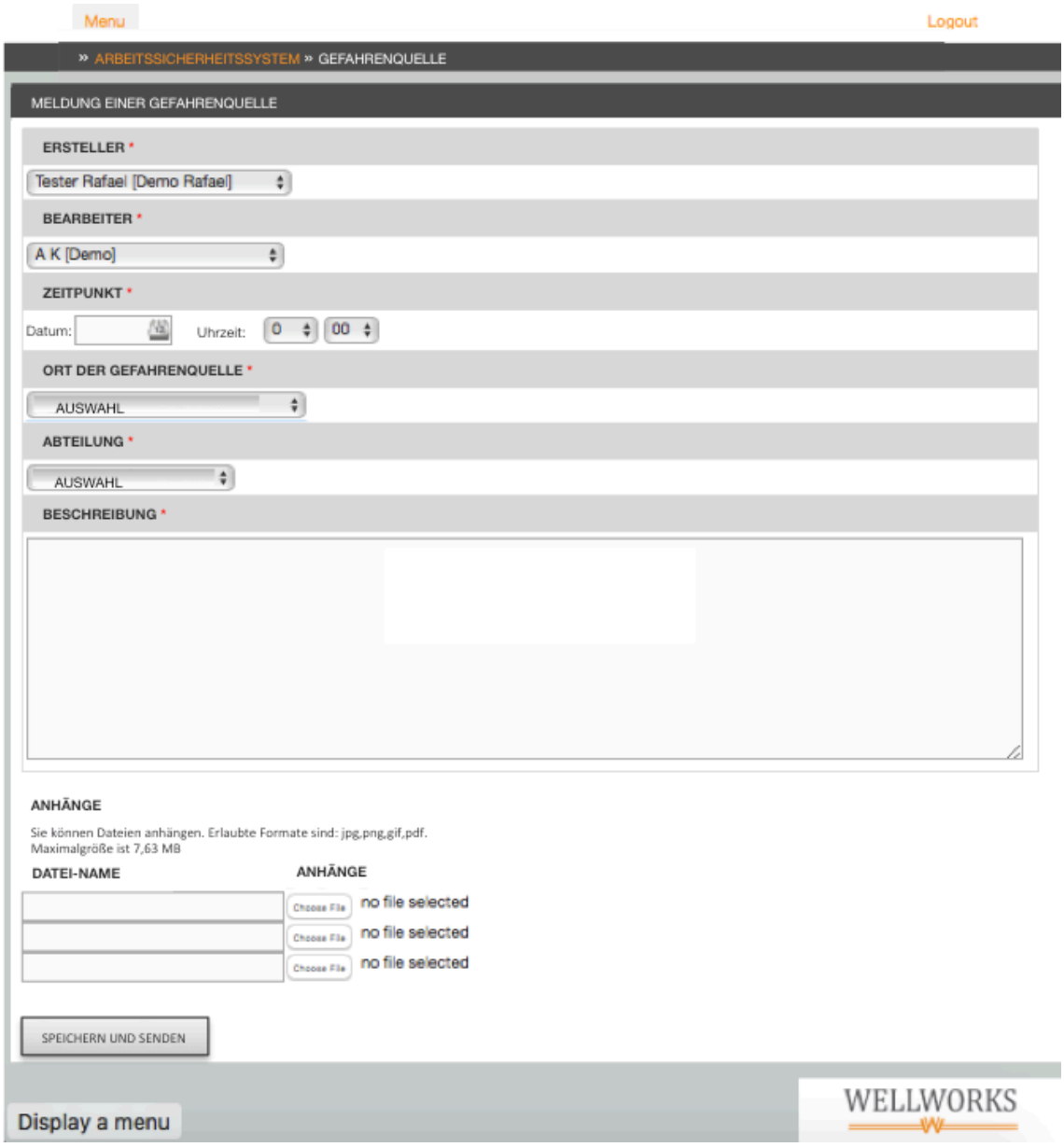
Question 5: What is the name of the work-safety software your company is working with?

Question 6: Are you satisfied with this software?

- Yes, because
- No, because

Question 7: Does the system have the features you have considered as important?
Question contains a rules that all responses marked as 'important' or 'very important' in question 2 pop up.
Response options: Yes, No, I don't know

On the following screenshot depicts a reporting of a safety observation of a case safety-software.



Question 8: How strongly do agree or disagree with the following statements regarding the screenshot?

Response options: strongly agree, agree, neither agree nor disagree, disagree, strongly disagree

- The layout of the report is logical and easy to follow
- The design is appealing
- The structure is logical and I know how to report a safety observation
- I would report more safety hazards with a software like this
- I would recommend my employer this software

Question 9: In your opinion, why should every company have a safety observation and work-related accident software?

Question 10: What is your gender?

- Male
- Female

Question 11: In which department do you work in?

- Management
- Human Resource
- Accounting
- Finance
- Legal Department
- R&D
- Manufacturing
- Quality Assurance
- Work safety
- PR
- Marketing
- IT department
- Hardware administration and technic
- Sales
- Logistic, materials management
- Customer Service
- Facility Management
- Other (please specify)

Question 12: How many people work in your organisation?

- 1 – 10
- 11 – 50
- 51 – 200
- 201 – 500
- 501 – 1,000
- 1,001 – 5,000

- 5,001 – 10,000
- More then 10,000

Question 13: How many accidents occurred in your company within the last 12 months?

- 0 – 1
- 2 – 5
- 6 – 10
- 11 – 20
- More then 20
- I don’t know